

Title (en)  
Semiconductor digital circuits

Title (de)  
Digitaler Halbleiterschaltkreis

Title (fr)  
Circuits digitaux semi-conducteurs

Publication  
**EP 0439149 B1 19960327 (EN)**

Application  
**EP 91100842 A 19910123**

Priority  
JP 1297590 A 19900123

Abstract (en)  
[origin: EP0439149A1] Two switches (QP23,QN23) are provided to a semiconductor circuit which includes cascade connected first circuit section and second circuit section, each having an inverter (21,22) formed by complementary transistors (QP21,QN21;QP22,QN22) connected between a power terminal (BS1,BS2) and a grounding terminal. The first switch (QN23) is inserted between the first circuit section and the second circuit section and forms a current path of the electrical charge during the state transition of the circuit. The second switch (QP23) is inserted between the input end and the power terminal of the second circuit section and controlled by the output signal of the second circuit section. <IMAGE>

IPC 1-7  
**H03K 19/0185**; **H03K 19/094**; **H03K 19/086**

IPC 8 full level  
**H03K 3/356** (2006.01); **H03K 19/017** (2006.01); **H03K 19/0185** (2006.01)

CPC (source: EP KR US)  
**H03K 3/356147** (2013.01 - EP US); **H03K 19/01721** (2013.01 - EP US); **H03K 19/018521** (2013.01 - EP US); **H03K 19/185** (2013.01 - KR); **G09G 2310/0289** (2013.01 - EP US)

Citation (examination)

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- JP H01213022 A 19890825 - TOSHIBA CORP
- DE 3340567 A1 19840524 - TOKYO SHIBAURA ELECTRIC CO [JP]
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DOCDB simple family (application)  
**EP 91100842 A 19910123**; DE 69118214 T 19910123; KR 910001080 A 19910123; US 64465591 A 19910123